UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,920	07/31/2001	Satoshi Kondo	60188-520	5216

20277 7590 07/03/2006

MCDERMOTT WILL & EMERY LLP
600 13TH STREET, N.W.
WASHINGTON, DC 20005-3096

EXAMINER	
FLETCHER, JAMES A	

ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/830,920	KONDO, SATOSHI	
	Examiner	Art Unit	
	James A. Fletcher	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4 and 7-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3, 4, and 7-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

New Art Unit

1. Please include the new Art Unit 2621 in the caption or heading of any written or facsimile communication submitted after this Office Action because the examiner, who was assigned to Art Unit 2616, will be assigned to new Art Unit 2621. Your cooperation in this matter will assist in the timely processing of the submission and is appreciated by the Office.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Eifrig et al (6,748,020).

Regarding claim 1, Eifrig et al disclose a stream converting method comprising:

- separating a first transport stream (TS), processed by a digital compression process, into a first TS packet string formed from TS packets that have a prescribed packet identifier of at last one of video data and audio data (Col 15, lines 31-33 "The Demux 306 decomposes the transport stream and de-packetizes elementary stream syntax for the video components and identifies the individual video access units") and a second TS packet string formed from TS packets that do not have the prescribed packet identifier (Col 3, lines 37-

41 "The transmux should provide scheduling of multiple transcoding threads [including buffer management, processor management, and the like] with combinations of both transcoded video PIDs and pass-thru data/audio services on a single processor without the use of a RTOS");

- converting a bit rate of the first TS packet string so as to produce a third TS packet string (Col 2, lines 64-65 "a transcoder is used to change the bit rate"); and
- multiplexing the produced third TS packet string and the second TS packet string so as to produce a second transport stream (Col 8, lines 31-33 "An audio portion of the data services may be delayed at respective functions 340, 342, and 344, and recombined with the transcoded video data at the remux 336").

Regarding claim 3, Eifrig et al disclose a stream converting method comprising:

- extracting reference time information from the first transport stream so as to produce reference time from the reference time information (Col 17, lines 38-40 "Selected MTS and PES layer information to be preserved is stored in the picture structure [for inclusion in the output PES and MTS syntax]");
- determining, with reference to the reference time, time of receipt of a TS packet including a head byte of a PES packet in the first TS packet string as first time of receipt (Col 27, lines 58-60 "The remux module 336 regenerates the PES and MTS layer syntax using information saved in the picture structure [for video] or aud_delay FIFO");

- determining, with reference to the reference time, time of receipt of a head byte of each TS packet forming the second TS packet string as second time of receipt (Col 27, lines 58-60 "The remux module 336 regenerates the PES and MTS layer syntax using information saved in the picture structure [for video] or aud_delay FIFO"); and
- selecting from the second TS packet string a TS packet corresponding to the second time of receipt for output as the second transport stream, when the delayed reference time matches the second time of receipt (Col 15, lines 26-29 "The audio stream retains the same MTS and PES packet structure and will be output as part of the same service after the transcoding system delay").

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eifrig.

Regarding claim 4, Eifrig et al disclose a stream recording method comprising:

- separating a first transport stream into a first TS packet string formed from TS packets that have a prescribed packet identifier of at last one of video data and audio data (Col 15, lines 31-33 "The Demux 306 decomposes the

transport stream and de-packetizes elementary stream syntax for the video components and identifies the individual video access units") and a second TS packet string formed from TS packets that do not have the prescribed packet identifier (Col 3, lines 37-41 "The transmux should provide scheduling of multiple transcoding threads [including buffer management, processor management, and the like] with combinations of both transcoded video PIDs and pass-thru data/audio services on a single processor without the use of a RTOS");

- converting a bit rate of the first TS packet string so as to produce a third TS packet string (Col 2, lines 64-65 "a transcoder is used to change the bit rate");
- multiplexing the produced third TS packet string and the second TS packet string so as to produce a second transport stream (Col 15, lines 26-29 "The audio stream retains the same MTS and PES packet structure and will be output as part of the same service after the transcoding system delay");
- extracting reference time information from the first transport stream, and delaying reference time represented by the reference time information by a prescribed time so as to produce delayed reference time (Col 15, lines 26-29 "The audio stream retains the same MTS and PES packet structure and will be output as part of the same service after the transcoding system delay") and
- determining, with reference to the delayed reference time, time of receipt of each TS packet forming the second transport stream (Col 27, lines 58-60

"The remux module 336 regenerates the PES and MTS layer syntax using information saved in the picture structure [for video] or aud_delay FIFO").

- Eifrig et al are silent on the subject of recording the output.

The examiner takes official notice that devices for recording packetized video and audio data are well-known, widely used, and commercially available to the general public, and provide a means for storing audio and video programs for viewing at times convenient to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Eifrig et al to include recording of the remultiplexed bit stream.

Regarding claim 7, Eifrig et al are silent on the subject of recoding the output, and do not disclose a stream recording method characterized in that the recording medium is an optical disk.

The examiner takes official notice that optical disks are well-known, widely used, and commercially available to the general public, and provide a means for storing audio and video programs for viewing at times convenient to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Eifrig et al to include recording of the remultiplexed bit stream on an optical disk.

Regarding claims 8 and 9, Eifrig et al disclose a stream converting apparatus comprising:

- a packet separating section for separating a first transport steam into a first TS packet string formed from TS packets that have a prescribed packet identifier of at last one of video data and audio data (Col 15, lines 31-33 "The Demux 306 decomposes the transport stream and de-packetizes elementary stream syntax for the video components and identifies the individual video access units") and a second TS packet string formed from TS packets that do not have the prescribed packet identifier (Col 3, lines 37-41 "The transmux should provide scheduling of multiple transcoding threads [including buffer management, processor management, and the like] with combinations of both transcoded video PIDs and pass-thru data/audio services on a single processor without the use of a RTOS");
- a bit-rate converting section for converting a bit rate of the first TS packet string so as to produce a third TS packet string (Col 2, lines 64-65 "a transcoder is used to change the bit rate");
- a packet multiplexing section for multiplexing the third TS packet string output from the bit-rate converting section and the second TS packet string output from the packet separating section so as to produce a second transport stream (Col 8, lines 31-33 "An audio portion of the data services may be delayed at respective functions 340, 342, and 344, and recombined with the transcoded video data at the remux 336");
- a means for extracting reference time information from the first transport stream, and delaying reference time represented by the reference time

information by a prescribed time so as to produce delayed reference time (Col 15, lines 26-29 "The audio stream retains the same MTS and PES packet structure and will be output as part of the same service after the transcoding system delay"); and

- a recording control section for determining, with reference to the delayed reference time, time of receipt of each TS packet forming the second transport stream (Col 27, lines 58-60 "The remux module 336 regenerates the PES and MTS layer syntax using information saved in the picture structure [for video] or aud_delay FIFO")
- Eifrig et al are silent on the subject of recording the output.

The examiner takes official notice that devices for recording packetized video and audio data are well-known, widely used, and commercially available to the general public, and provide a means for storing audio and video programs for viewing at times convenient to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Eifrig et al to include recording of the remultiplexed bit stream.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (571) 272-7377. The examiner can normally be reached on 7:45-5:45 M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAF
26 June 2006